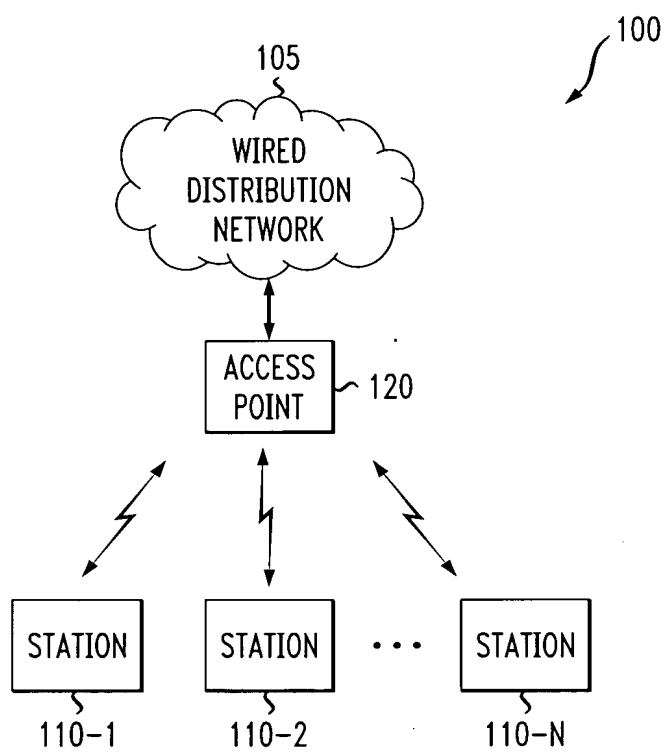




FIG. 1

PRIOR ART





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FIG. 2

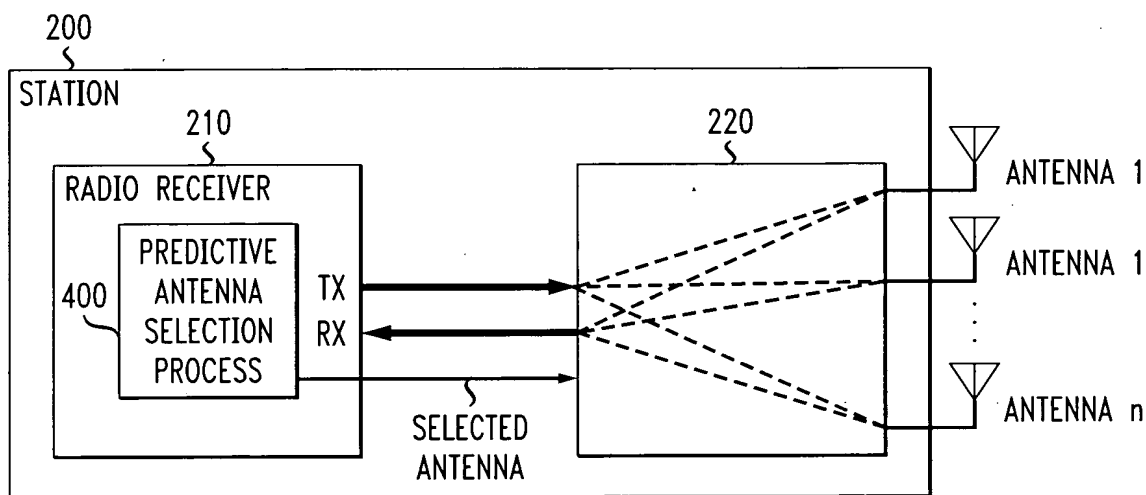
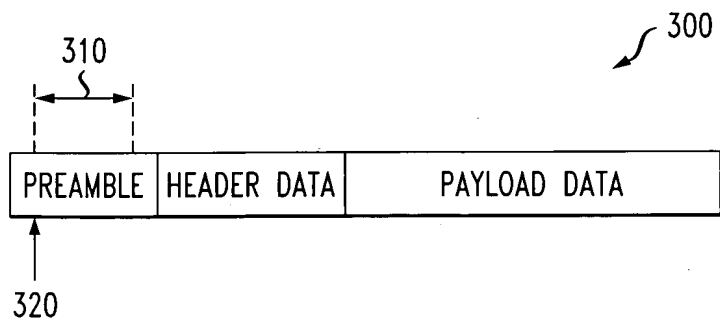


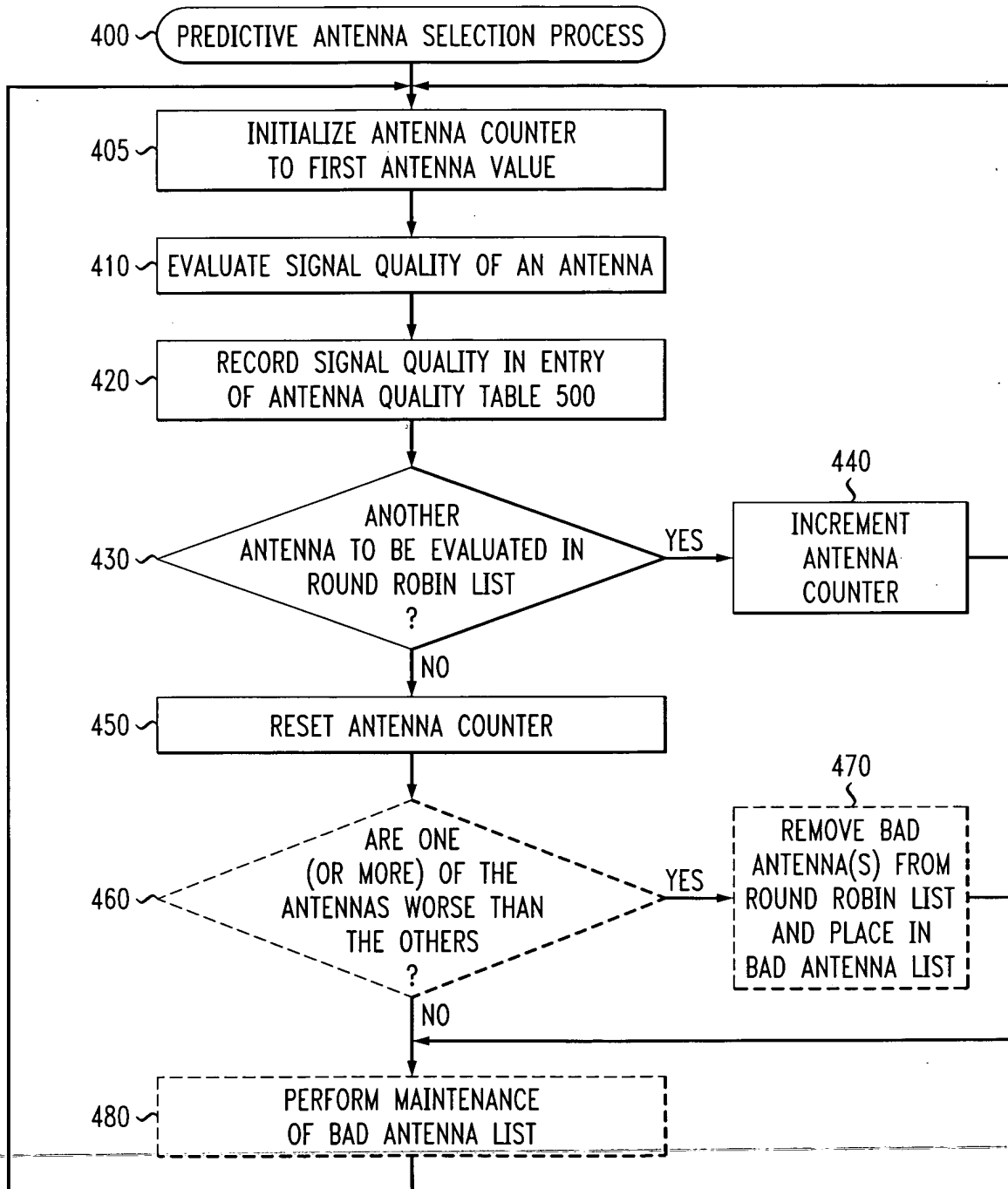
FIG. 3





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FIG. 4





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FIG. 5

500 ↙

510-1 ⏟	510-2 ⏟	...	510-n ⏟
ANT 1	ANT 2	...	ANT n
15	17	...	20

FIG. 6A

```
// initialize variables
function initialize () {
    list_of_good_antennas = 1..number_of_antennas;
    list_of_bad_antennas = empty;
    nr_good_receptions = 0;
    bad_reception = false;
    rx_antenna = first one in list_of_good_antennas;
    configure_receiver_antenna (rx_antenna);
    initialize Antenna Quality list;
}

// a frame has been received from the central node on antenna x, with a certain
signal quality
function FrameReceived (Antenna x, SignalQuality sq) {
    update value that belongs to antenna x in Antenna Quality list with new data sq

    // select the next good antenna from the list of good antennas, EXCEPT that
once
    // every 'max_good_receptions' one of the bad antennas is selected to refresh
its sq value
    if nr_good_receptions = max_good_receptions then
        nr_good_receptions = 0;
        if list_of_bad_antennas is empty then // no bad antennas to
measure
            let rx_antenna = next one in list_of_good_antennas;
            increment nr_good_receptions;
        else
            let rx_antenna = next one in list_of_bad_antennas;
        fi
}
```



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FIG. 6B

```
else
    let rx_antenna = next one in list_of_good_antennas;
    increment nr_good_receptions;

fi
configure_receiver_antenna (rx_antenna);

// put bad antennas in the 'bad' list, and put good antennas in the 'good' list
if antenna x in list_of_good_antennas AND
it is worse by (margin + hysteresis) than any other antenna in the Antenna
Quality list then
    remove antenna x from list_of_good_antennas;
    insert antenna x into list_of_bad_antennas;
else if antenna x in list_of_bad_antennas AND
it is not worse by (margin - hysteresis) than any other antenna in the Antenna
Quality list then
    remove antenna x from list_of_bad_antennas;
    insert antenna x into list_of_good_antennas;
fi
}

// a frame is to be transmitted to node B
function TransmitFrame (frame) {
    let tx_antenna = the antenna in the Antenna Quality list with the highest
signal quality;
    configure_transmitter_antenna (tx_antenna);
    transmit (frame);
}
```
